

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A method to prepare a vaccine effective against viral infection which method comprises:

providing a mixture of at least one viral protein antigen with a proteosome preparation in the presence of detergent, wherein the ratio of proteosomes to antigen is greater than 1:1; and

removing detergent from said mixture by diafiltration or ultrafiltration to obtain a proteosome-antigen composition, and

formulating said composition into a vaccine.

Claim 2 (Original): The method of claim 1 wherein said at least one viral antigen is an antigen derived from influenza virus.

Claim 3 (Original): The method of claim 2 wherein said at least one influenza antigen is hemagglutinin (HA).

Claim 4 (Cancelled)

Claim 5 (Currently Amended): The method of ~~claim 4~~ claim 1 wherein said ratio is at least 4:1.

Claim 6 (Original): The method of claim 1 which includes more than one viral antigen.

Claim 7 (Currently Amended): A method to prepare a vaccine effective against infection which method comprises:

providing a mixture of at least one infective protein antigen with a proteosome preparation in the presence of a detergent wherein the ratio of proteosomes to antigen is greater than 1:1;

removing detergent from said mixture by diafiltration or ultrafiltration to obtain a proteosome-antigen composition; and

formulating said composition into a vaccine

C2 wherein the ratio of proteosomes to antigen in said mixture is greater than 1:1.

Claim 8 (Original): The method of claim 7 wherein said ratio is at least 4:1.

Claim 9 (Original): A vaccine prepared by the method of any of claims 1-8.

C3 Claim 10 (Currently Amended): An influenza vaccine which comprises at least one influenza hemagglutinin (HA) formulated with proteosomes in the substantial absence of detergent, wherein the formulation ratio of proteosomes to influenza HA is greater than 1:1.

Claim 11 (Original): The vaccine of claim 10 wherein said HA and proteosomes are in the form of particles with a median size in the range of 150-1,000 nM as measured by light scattering.

Claims 12-13 (Cancelled)

C4 Claim 14 (Currently Amended): A method to prepare a multivalent vaccine effective against viral infection which method comprises:

providing a mixture of at least two viral protein antigens to a proteosome preparation in the presence of detergent wherein the ratio of proteosomes to antigens is greater than 1:1; and

removing detergent from said mixture by diafiltration or ultrafiltration to obtain a proteosome-multivalent antigen composition, and

formulating said composition into a vaccine.

Claim 15 (Original): The method of claim 14 wherein the viral antigens are derived from influenza virus.

Claim 16 (Original): The method of claim 15 wherein said influenza antigens are hemagglutinin antigens (HA).

Claim 17 (Cancelled)

Claim 18 (Currently Amended): The method of ~~claim 17~~ claim 14 wherein said ration is at least 4:1.

Claim 19 (Currently Amended): A method to prepare a multivalent vaccine effective against infection which method comprises:

providing a mixture of at least two ~~viral~~ infective protein antigens to a proteosome preparation in the presence of detergent wherein the ratio of proteosomes to infective antigens is greater than 1:1; and

removing detergent from said mixture by diafiltration or ultrafiltration to obtain a proteosome-multivalent antigen composition, and

formulating said composition into a vaccine ~~wherein the ratio of proteosomes to viral antigens in said mixture is greater than 1:1~~.

Claim 20 (Original): The method of claim 19 wherein said ratio is at least 4:1.

Claims 21-29 (Cancelled)

Claim 30 (Original): The method of claim 1 wherein said detergent comprises more than one detergent.

Claim 31 (Previously Amended): A composition prepared as described in claim 1 which is filtered with a 0.2 or 0.8 μm filter.

Claim 32 (Previously Amended): A composition prepared as described in claim 7 which is filtered with a 0.2 or 0.8 μm filter.

Claim 33 (Previously Amended): A composition prepared as described in claim 14 which is filtered with a 0.2 or 0.8 μm filter.

Claim 34 (Previously Amended): A composition prepared as described in claim 19 which is filtered with a 0.2 or 0.8 μm filter.

Claims 35-57 (Cancelled)

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Claim 58. (New): An influenza vaccine which comprises at least one influenza hemagglutinin (HA) formulated with proteosomes in the substantial absence of detergent, wherein the formulation ratio of proteosomes to influenza HA is at least 4:1.
